

the west. The river, which was here divided into several shallow, superficial arms, was frozen hard in the morning, there having been  $-14.9^{\circ}$  frost during the night; thus we were able to cross it dry-shod. In consequence of being frozen the river had in some places spread itself out, giving rise to small floods; hence during the course of the winter ice-sheets similar to those that are formed below the mountain springs will pretty certainly arise here. We pitched Camp XCVIII at an altitude of 4998 m., beside a little clay hill not far from the foot of the mountains and in the vicinity of an open spring-fed basin. The promised grazing was however in point of fact just as wretched there as anywhere else; but we were now promised, that we should indeed find better after a long day's march to the west beside the river Dungtsang-tsangpo. However I had no opportunity to visit that river, for upon striking camp again, I preferred to adopt a more southerly route; but the caravan followed the main valley, treading in Littledale's footsteps, a thing I was anxious to avoid doing myself. Littledale's map shows however that a river bearing that name actually does exist; he calls it Dunzan-sanpo, and it seems to flow towards the west.

After ordering the caravan to wait for me somewhere in the neighbourhood of the mountain-mass of Scha-gandschum, I set off on 7th October with five horses, four mules, and four men towards the south, intending to cross over the nearest range and make a reconnaissance on the other side of it. As I undertook this little excursion directly contrary to the desire of my Tibetan escort, I had of course to go without a guide. Nevertheless if the country in that quarter did not prove too unfavourable, we should, I expected, be able to find our way to the rendezvous by ourselves. The simplest plan would have been to follow the river Tschuring from Camp XCVII, travelling up the easy glen through which it makes its way from the other side of the southern mountains into the latitudinal valley. But as I felt satisfied, that by crossing over the most northerly of the parallel ranges I should obtain a more extensive orographical view, I preferred to start from Camp XCVIII, and to travel south-south-west through the nearest transverse glen, which ascends fairly gently towards an easy, rounded pass. The slope on the south is much steeper and descends directly to the valley of the Tschuring, which is in general rather narrow, though without contracting into any really strait passages. In the occasional expansions of the valley the pasture was better than it had been for a long time. In one of these expansions sheep, yaks, and horses were grazing round a tent. The river flows sometimes in a single collected channel and sometimes it is divided into several arms. The southern range, which forms the direct westward continuation of that which we had crossed over by the obo pass, is more massive than that on the north, and is pierced by steep transverse glens opening upon the principal valley of the Tschuring. The greatest of these bore south-south-east from the pass; but like all its fellows, it carried no rivulet. To the south-south-west appeared a shoulder of the more imposing range from behind which the river emerges on its way from the south, though it soon turns towards the north-east and east-north-east. The bottom of the valley sloped gently towards Camp XCVII; in a few places however, as for instance on the left side, where a buttress projects, contracting it, the fall is so far appreciable that small rapids are formed. In quiet reaches the river was frozen; its waters abounded in fish.